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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,547	09/22/2003	John H. Sohl III	36507-193186	5549

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EXAMINER	
HOLLINGTON, JERMELE M	

ART UNIT	PAPER NUMBER
2829	

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/666,547	SOHL ET AL.	
	Examiner	Art Unit	
	Jermele M. Hollington	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31 and 33-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16,18-31,35 and 36* is/are rejected.

7)☒ Claim(s) *17,33 and 34* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *04/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "removable waterproof electrical coupling" and "removable O-ring mechanical coupling".

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 9, the claim includes limitations "removable waterproof electrical coupling" and "removable O-ring mechanical coupling". The specification does not disclose that these coupling are removable.

Therefore, for the purpose of applying art, the examiner is taking a position that the coupling above is not removable until the applicants provide in the specification that these coupling are removable.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-5 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christy (A Permeable Membrane Sensor For The Detection of Volatile Compounds in Soil).

Regarding claims 1-5 and 36, Christy [see Figs. 1-3] disclose a driveable membrane interface probe housing having a diameter of 1.5 inches [see paragraph 1 under System Description on page 1] couple to a driveable rod system (wiring cavity) or a driveable push and hammer system [see paragraph 1 under System Description on page 1] for a low side wall support drive rod string applications [see Introduction] operative to drive said MIP housing into a subsurface and comprises two permeable membrane (membrane and membrane block) on a periphery of said MIP housing. However, Christy does not disclose the diameter of at least 2.125 inches. It is well known to change the dimension of the probe where needed (see MPEP 2144.04; *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984)). It would have been obvious to a person having ordinary skill in the art at the time the invention to make the dimension of the probe housing of Christy to be larger since the claimed device is not patentably distinct from the prior art device for the mere fact that the claimed device having the claimed relative dimensions would not perform differently than the prior art device.

6. Claims 6-16, 18-31 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adriany et al (6405135).

Regarding claim 6-8, Adriany et al disclose a driveable membrane interface probe apparatus [see Fig. 3] comprising a cylindrical portion having a permeable membrane (48) and a membrane interface probe that is to provide circumferential sensing (see column 2, lines 28-41) as a series of sensors may be placed in a circle. The probe is also operative to increase likelihood of collection of volatile organic mass (see column 2, lines 44-46). However, they do not disclose two or more permeable membrane as claimed. It is well known to have more than one permeable membrane where needed (see MPEP 2144.04; *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960)). It would have been obvious to a person having ordinary skill in the art at the time the invention to make probe housing of Adriany et al to have two or more permeable membrane since court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.

Regarding claim 9, Adriany et al disclose a membrane interface probe apparatus [see Fig. 3] comprising a membrane interface probe comprising at least one of a waterproof electrical coupling (38 and 52) operative to couple and decouple one or more electrical wires, and/or an O-ring mechanical couplings (42) operative to couple and decouple mechanically at least one of conduit and/or tubing to said MIP housing, wherein at least one of said waterproof electrical coupling (38 and 52) and/or said O-ring mechanical couplings (42)are watertight.

Regarding claim 10, Adriany et al disclose a drivable membrane interface probe apparatus [see Fig. 3] comprising driveable modular membrane interface probe comprising a plurality of modular components can be replaced on site for malfunctioning components (see

column 8, lines 1-3) and wherein said driveable modular MIP is operative to receive in a cavity (30) one or more operator-selectable elements.

Regarding claim 11, Adriany et al disclose driveable modular MIP comprising an external barrel having a cavity (30).

Regarding claim 12, Adriany et al disclose a removable conductivity nose assembly (28).

Regarding clam 13, Adriany et al disclose a field-insertable removable cartridge-heating element (86).

Regarding claim 14, Adriany et al disclose driveable modular MIP comprising at least one of a waterproof electrical coupling (38 and 52) and/or O-ring mechanical couplings (42).

Regarding claims 15-16, Adriany et al disclose a driveable membrane interface probe comprising a removable trap (28) (see column 8, lines 1-3) that traps volatile organic compounds (see column 8, lines 7-10).

Regarding claim 18, Adriany et al disclose means (removable trap 28) for trapping concentrating of volatile organic compounds during sampling and logging events.

Regarding claim 19, Adriany et al disclose a membrane interface probe comprising a heated transfer line (86) from a body of said MIP to surface detector suite (44).

Regarding claim 20, Adriany et al disclose [see Fig. 3] a membrane interface probe, an enhanced scanning module (34, 10, 48, 44), and a sample introduction system (16).

Regarding claim 21, Adriany et al disclose [see Fig. 3] a membrane interface probe, a global positioning system (16), and a data acquisition system (10, 34, 44, 48).

Regarding claim 22, Adriany et al disclose probe system comprising a membrane interface probe comprising a mobile device (10) in communication with a data acquisition

system (34, 48) enabling near real time transfer of data from the MIP sensor to a base station (18).

Regarding claims 23-24, Adriany et al disclose mobile device (10) comprises a control module (16) wherein the device (10) is portable.

Regarding claims 25 and 28, Adriany et al disclose the enhanced scanning module comprises a flow control subsystem (34) coupled to a detector subsystem (10), a dryer/moisture separator subsystem (48), a sampling subsystem (44) and a software control subsystem (16) connected to the detector subsystem (see column 3, lines 46-48).

Regarding claims 26 and 30, Adriany et al disclose the sampling subsystem (44) comprises an absorbent trap (46).

Regarding claims 27 and 31, Adriany et al disclose the enhanced scanning module further comprises a power supply (62), a bypass module (see Fig. 1 path 19-22 or 19-20), and a feedback signal (see abstract lines 12-16).

Regarding claim 29, Adriany et al disclose the software control subsystem (16) is coupled to the dryer/moisture separator subsystem (48).

Regarding claim 35, Adriany et al disclose the software control subsystem (16) comprises a data logger (Fig. 1 part 21), a sequencer (Fig. 5 part 76), a monitor (Fig. 1 part 18), a display (see column 8, lines 32-34) and a recording function (see column 10, line 29).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 20 and 25-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Robbat (5970804).

Regarding claim 20, Robbat discloses [see Fig. 8d], a membrane interface probe system comprising a membrane interface probe (653), an enhanced scanning solutions module (600) and a sample introduction system (643).

Regarding claims 25 and 28, [see Fig. 8d] Robbat discloses the enhanced scanning solutions module (600) comprises a flow control subsystem (607) coupled to a detector subsystem (605), a dryer/moisture separator subsystem (603), a sampling subsystem (601) and a software control subsystem (639, 667, 679).

Regarding claims 26 and 30, Robbat discloses the sampling subsystem (601) comprises an absorbent trap.

Regarding claims 27 and 31, Robbat discloses the enhanced scanning solutions module further comprises an exhaust (635) and a power supply (667).

Regarding claim 29, Robbat discloses the software control subsystem (639, 667, 679) is coupled to the dryer/moisture separator subsystem (603).

Regarding claims 32-33, Robbat discloses the module can be reconfigured and comprises a plurality of operator-selectable modes and a plurality of pre-programmable modes (column 10 lines 1-11).

Regarding claim 34, Robbat discloses an interface between the detector subsystem (605) and a gas handling subsystem that allows insertion of a dryer (column 24, lines 35-37).

Regarding claim 35, Robbat discloses the software control system (639, 667, 679) comprises a data logger (column 9, line 55).

Conclusion

The examiner will like to note that claims dealing with the limitation "operative to" and "adapted to" has been held that the recitation that an element is operative to performing or "adapted to" perform is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. See also MPEP 2111.04.

9. Applicant's arguments filed April 12, 2006 have been fully considered but they are not fully persuasive.

a) Regarding claim 1, the applicant argues: *"...No where in Christy is there any discussion of, teaching or suggestion of any MIP of diameter greater than 1.5 inches. Thus, Christy does not teach or suggest "a membrane interface probe (MIP) housing having a diameter of at least 2.125 inches" (emphasis added), as recited in amended claim 1. Therefore, amended claim 1 is in condition for allowance and allowance thereof is respectfully requested."*

In response to the above arguments, the examiner does not find the arguments persuasive for the mere fact that the claimed device having the claimed relative dimensions would not perform differently than the prior art device. They both are membrane interface probe that are used to detect contamination such as oil and water in a soil.

b) The applicant argues: *"...Adriany is not "driveable" as required for the claims, as amended. Adriany instead sets for a stationary monitoring system. An Adriany system is an alarm system, which is placed permanently into the ground to monitor subsurface conditions."*

In response to the above arguments, the examiner does not find the arguments persuasive since in col. 7, lines 45-47, it states that "The push point 32 [of MIP housing 28] may be a

conically shaped solid metallic object commonly used in the art for creating a cavity when **driven** into a surface."

c) The applicant argues: *"...Adriany fails to teach or suggest an electrical coupling that is removable, instead Adriany indicates the electrical cabling is anchored as shown in the cross-sectional view of FIG. 3 of Adriany and is not capable of being decoupled as required by the claim. Since Adriany is not capable of being electrically coupled and recoupled, it is also not capable of being electrically coupled and recoupled in a watertight manner."*

In response to the above arguments, the examiner does not find the arguments persuasive 1) the specification does not provide proper antecedent basis for the claimed subject matter and 2) where a limitation is "capable of" performing is not a positive limitation but only requires the ability to so perform.

d) The applicant agues: *"...Adriany's temperature compensator 86 is an electrical circuit that responds to temperature variation, but does not teach or suggest a heated vapor transfer line for transport of vapors, as set forth in claim 19."*

In response to the above arguments, the examiner does not find the arguments persuasive in col. 10, lines 3-8, it states: "A temperature compensator 86 maintains the sensors at a constant temperature so as to minimize any effects the surrounding temperature may have on the frequency of the acoustic wave. This in turn allows the SAW sensor to be more effective in detecting the rate of change in concentration of chemical vapors."

e) The applicant argues: *"Amended claim 20 recites "a driveable membrane interface probe (MIP); an enhanced scanning solutions module operatively coupled to said driveable MIP; and a sample introduction system coupled to said driveable MIP operative to introduce calibration gas and to allow for simultaneous sampling of an in situ volatile organic gas stream for chromatographic analysis." MIP. Christy may be driveable but fails to*

teach or suggest a sample introduction system or scanning solutions module as claimed. Robbat fails to teach or suggest sampling and analysis of an "in situ" gas stream. Claim 20 thus is allowable over the applied references."

In response to the above arguments, the examiner does not find the arguments persuasive since applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

f) The applicant argues: "Adriany and Robbat also fail to teach or reasonably suggest a "operative to be at least one of configured and/or reconfigured to include a plurality of operator-selectable measurement subsystems... prior to exhaust" according to claim 25."

In response to the above arguments, the examiner does not find the arguments persuasive because the recitation that an element is "operative to" performing is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense See also MPEP 2111.04.

10. Claims 17 and 33-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermele M. Hollington whose telephone number is (571) 272-1960. The examiner can normally be reached on M-F (9:00-4:30 EST) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ha Nguyen can be reached on (571) 272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jermele M. Hollington
Primary Examiner
Art Unit 2829

JMH
August 3, 2006